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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/696,341 | 10/29/2003 | Howard B. Sosin | 2002832-0036 | 8103 |
| 7590 | 12/23/2004 | | | EXAMINER |
| Choate, Hall & Stewart Attn: Brenda Herschbach Jarrell, Ph.D. 53 State Street Exchange Place Boston, MA 02109 | | | BLAU, STEPHEN LUTHER | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3711 | |
| | | | DATE MAILED: 12/23/2004 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/696,341 | SOSIN, HOWARD B. |
| | Examiner Stephen L. Blau | Art Unit 3711 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 November 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 25-45 is/are pending in the application.
 4a) Of the above claim(s) 28, 29 and 36-45 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 25-27 and 30-35 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 10/29/03.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 28-29 and 36-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 15 November 2004.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 30-31 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 30-31 and 35 are indefinite in that the term "perceived" force is indefinite. How one golfer perceives a force may be different from how another golfer perceives a force. Claims 30 and 35 are indefinite in that there is improper antecedent basis for "the perceived force" in that this term has not been previously disclosed. The examiner recommends replacing the word "the" with the word -- a --.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 25-27, 30-32, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoeflich.

Hoeflich discloses a matched set of golf clubs for a golfer in the form of the geometric center on a face and the center of gravity of a head coincides throughout a set of irons (Claim 1), each club having a length (Table B-1) which will produce a target distance for a given tempo (inherently implied), wherein a selected functional relationship exists in the form as the set was designed this way over a plurality of clubs between the tempo in the form of angular velocity and the length since angular velocity can be converted to speed (hands and head) at impact and speed is functionally related to length as disclosed in equation (1) of this application. This equation would be true for a golfer using this set of irons of Hoeflich who swings each club with the same tempo (angular velocity) which is common in the art. This set of clubs is able to perform the function as claimed. Weight in apparatus claims are given to what the apparatus is and weight is not give to how it is made or how it is used.

This set of clubs is able to be swung by a golfer throughout the set maintaining a linear relationship between length and tempo as disclosed on Page 8 line 20 between a

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeflich in view of Nesbit.

Hoeflich lacks clubs designed by a computer-aided design method and clubs manufactured by a computer-assisted manufacturing method.

Nesbit discloses clubs designed by a computer-aided design method (Col. 4, Lns. 34-37) and clubs manufactured by a computer-assisted manufacturing method (Col. 3, Lns. 3-7) in order to increase the precision obtained in the design (Col. 2, Lns. 42-46). In view of patent of Nesbit it would have been obvious to modify the set of clubs of Hoeflich to include clubs designed by a computer-aided design method and clubs manufactured by a computer-assisted manufacturing method in order to increase the precision obtained in the design and manufacturing of a club head.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. MacDougall (Claim 1) and Townhill (Col. 1, Lns. 36-45) disclose a golfer hitting clubs throughout a set with the same tempo in the form of a constant angular velocity. William (3,305,235) (Col. 1, Lns. 18-25) discloses that more shaft length increases head velocity. Kobayashi (Col. 1, Lns. 5-17) discloses varying club length, loft and head mass to vary trajectory and distance for a club.

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reference iron and all the other irons where $r(\text{tempo}) = [v(\text{hand iron\#})/v(\text{hand reference iron})] = [l(\text{iron 3})/l(\text{reference iron})]$. Since a golfer controls the tempo, a set of Hoeflich is able to perform the function as stated in claim 27.

Hoeflich discloses a selected functional relationship in the form as the set was designed this way over a plurality of clubs between the centripetal force and the length since the set of clubs of Hoeflich can follow equations (3) and (4) of this application for a set of irons with a reference iron being used instead of a driver club.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeflich in view of D'Amico.

Hoeflich discloses a lean angle of about zero degrees from vertical (Figures 6,8, and 10). D'Amico discloses a none zero lean angle (Fig. 1B) in order to have a golfer find a proper knee flex so a stance is neither too squat nor too erect (Col. 3, Lns. 1-13). In view of the patent of D'Amico it would have been obvious to modify the set of clubs of Hoeflich to have lean angles of clubs optimized in order to have a golfer find a proper knee flex so a stance is neither too squat nor too erect.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (571) 272-4406. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (571) 272-4415. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858. (TC 3700 Official Fax 703-872-9306)

slb/ 21 December 2004



STEPHEN BLAU
PRIMARY EXAMINER